UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,998	03/26/2004	Ling Su	16055US01	8997

7590 03/26/2008

CHRISTOPHER C. WINSLADE
MCANDREWS, HELD & MALLOY, LTD.
34th Floor
500 West Madison St.
Chicago, IL 60661

EXAMINER	
SAMS, MATTHEW C	
ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
03/26/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/810,998	SU ET AL.	
	Examiner	Art Unit	
	MATTHEW C. SAMS	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This office action is in response to the arguments filed on 1/7/2008.

2. No claim amendments were filed.

Response to Arguments

3. Applicant's arguments filed 1/7/2008 have been fully considered but they are not persuasive.

4. In response to the applicant's argument regarding claim 1 that "Liang does not disclose or suggest at least the limitations of "assigning first and second priority indications to first and second wireless transceiver circuits, respectively, where each priority indication may be selected from a plurality of available priority indications" (Page 17), the examiner disagrees.

Liang teaches two wireless transceiver circuits, a WLAN circuit (Fig. 1 [104]) and a Bluetooth circuit (Fig. 1 [106]). Liang assigns a first and second priority indication to the first and second wireless transceiver circuits when a "conflict exists". (Page 3 [0023]) Liang teaches deciding which circuit should communicate through an arbitration process, which "is provided on a packet-by-packet basis, according to a predetermined scheme of assumptions and **priorities based on the end-use application**". (Page 2 [0020]) In other words, Liang's priorities are determined based on the application that is trying to communicate using a specific transceiver. Liang teaches "each priority

indication may be selected from a plurality of available priority indications" by stating the following priorities of one example embodiment:

- Voice transmission and reception over Bluetooth is given priority over all other data traffic. (Page 3 [0024])
- Non-voice data priority **may** be given to the WLAN function. (Page 3 [0024]) (examiner note: "may" implies the WLAN priority is not always higher than the priority of the non-voice Bluetooth data)
- Non-voice Bluetooth data may transmits only when the WLAN function is inactive. (Page 3 [0024])

The examiner counts three possible priorities for Bluetooth (highest, above the non-voice data of the WLAN and below the non-voice data of the WLAN) and at least two priorities for WLAN (lower than Bluetooth voice data, higher than non-voice Bluetooth data and lower than non-voice Bluetooth data).

5. In response to the applicant's argument that "Liang does not disclose a plurality of available priority indications" (Page 18), the examiner disagrees.

As an initial matter, the examiner would like to make the record clear as to the definition of "plurality". The definition of "plurality" is defined in the 4th Edition of the American Heritage College Dictionary (Page 1072) as being "The state or fact of being plural", where the definition of plural is "Relating to or composed of more than one member, set or kind". The examiner views this as being a number greater than one.

Since Liang clearly discloses two wireless transceiver circuits (Fig. 1 [104 & 106]) and a desire to find a solution to the conflict of which application has the priority to

transmit using the wireless transceivers on a real-time basis. (Page 2 [0020]) Following this logic, once Liang allows the first wireless transceiver to transmit, which would then delay the use of the second wireless transceiver (Page 3 [0023-0024]), Liang has disclosed a "plurality of available priority indications" because once a first priority has been assigned, inherently a second priority (either higher or lower than the first priority) has been assigned. The examiner welcomes any example/explanation where this would not be true.

6. In response to the applicant's argument regarding claim 1 that "Liang does not disclose or suggest at least the limitation of "detecting an application that is configured to receive or transmit data on the second wireless transceiver circuit ... and assigning a third priority indication to the second wireless transceiver circuit when the predetermined application is detected"" (Page 19), the examiner disagrees.

Liang teaches deciding which circuit should communicate through an arbitration process, which "is provided on a packet-by-packet basis, according to a predetermined scheme of assumptions and **priorities based on the end-use application**". (Page 2 [0020]) In other words, Liang's priorities are determined based on the application that is trying to communicate using a specific transceiver.

With respect to "assigning a third priority indication to the second wireless transceiver circuit when the predetermined application is detected", Liang clearly teaches assigning "priorities based on the end-user application" (Page 2 [0020]) and clearly teaches two different priorities for Bluetooth data (voice data and non-voice data) with the priority for WLAN data either being placed between the Bluetooth voice data

and non-voice data or below both of the Bluetooth priorities. Regardless of the priority order, Liang teaches assigning at least three different priorities based on the end-user application. (Page 2 [0020] and Page 3 [0024])

7. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

8. In response to the applicant's argument regarding claim 19 that "Liang does not disclose any allocated first and second allocated priority" Pages (22-23), the examiner disagrees.

If Liang does not allocate a first and second priority in order to resolve a conflict (Page 3 [0023-0024]) when both the Bluetooth function and the WLAN function wish to operate at the same time, then how does Liang operate?

Applicant seems to be arguing that a "weighting or bias in favor of one particular type of communication" doesn't also equate to assigning or allocating a priority. When Liang discusses "weighting or bias in favor", not only is Liang teaching the assigning and allocating of a priority, but Liang is also indicating when Liang views the "one particular type of communication" is more important than the other types of communication. Again, the examiner welcomes the applicant to explain a situation where the assigning of a first priority would not include assigning a second priority. If

the situation occurs, there would be no reason to assign a priority in the first place, because there would be no need for a differentiating factor.

Liang teaches "assigning of priority indications selected from a plurality of priority indications" by stating the following priorities of one example embodiment:

- Voice transmission and reception over Bluetooth is given priority over all other data traffic. (Page 3 [0024])
- Non-voice data priority **may** be given to the WLAN function. (Page 3 [0024]) (examiner note: "may" implies the WLAN priority is not always higher than the priority of the non-voice Bluetooth data)
- Non-voice Bluetooth data can transmit only when the WLAN function is inactive. (Page 3 [0024])

The examiner counts three possible priorities for Bluetooth (highest, above the non-voice data of the WLAN and below the non-voice data of the WLAN) and at least two priorities for WLAN (lower than Bluetooth voice data, higher than non-voice Bluetooth data and lower than non-voice Bluetooth data).

9. In response to the applicant's argument regarding claim 19 that the "combination of Liang and Lane does not disclose or suggest at least the limitation of "means for adjusting the second allocated priority to be higher than the first allocated priority if real-time human interface device (HID) traffic is detected on the second means" (Page 23), the examiner disagrees.

Liang teaches that it "may be desirable to incorporate a short-range wireless technology for user interface functions (e.g., wireless voice headset)" (Page 1 [0004])

and that "voice transmission and reception over Bluetooth is given priority over all other data traffic" (Page 3 [0024]) while "non-voice priority may be given to function 104 such that function 106 can only access antenna when function 104 is inactive" (Page 3 [0024] *i.e.* Bluetooth data that isn't voice data can be given the lowest priority) which in the examiner's opinion means if HID traffic (*i.e.* Bluetooth voice data) is detected, then the highest priority is given but if the Bluetooth data isn't voice data, then it can be given the lowest priority.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1, 3, 4, 6-8, 10-12, 15-17, 21-23, 25, 26, 28-30, 32-35, 39 & 40 are rejected under 35 U.S.C. 102(e) as being unpatentable by Liang et al. (US 2004/0029619 hereinafter, Liang).

Regarding claim 1, Liang teaches an integrated circuit wireless communication device having at least two wireless transceiver circuits (Fig. 1 [102] & Page 2 [0021]), a method for coordinating potentially conflicting wireless communications (Abstract), comprising:

assigning first and second priority indications to first (Fig. 1 [104]) and second (Fig. 1 [106]) wireless transceiver circuits, respectively, where each priority indication may be selected from a plurality of available priority indications; (Page 2 [0020] "Arbitration is provided on a packet-by-packet basis, according to a predetermined scheme of assumptions and priorities based on the end-use application" and Page 3 [0024] "all non-voice priority may be given to function 104 such that function 106 can only access antenna when function 104 is inactive")

receiving or transmitting data on the first wireless transceiver circuit in accordance with the relative priority of the first priority indication to the second priority indication; (Page 3 [0025])

detecting an application that is configured to receive or transmit data on the second wireless transceiver circuit; (Page 2 [0020] "Arbitration is provided on a packet-by-packet basis, according to a predetermined scheme of assumptions and priorities based on the end-use application" and Page 3 [0024] "in a number of embodiments, voice transmission and reception over Bluetooth is given priority over all other data traffic")

assigning a third priority indication to the second wireless transceiver circuit when the predetermined application is detected; (Page 3 [0024] "in a number of embodiments, voice transmission and reception over Bluetooth is given priority over all other data traffic" and Page 3 [0024] *i.e.* non-voice Bluetooth data may only transmit when the WLAN function is inactive) and

receiving or transmitting data on the second wireless transceiver circuit in accordance with a relative priority of the third priority indication to the first priority indication. (Page 3 [0024] "in a number of embodiments, voice transmission and reception over Bluetooth is given priority over all other data traffic" and Page 4 [0030] "Bluetooth voice link takes precedence over other traffic types")

Regarding claim 3, Liang teaches the third priority indication is a maximum priority indication that is available from the plurality of available priority indications. (Page 3 [0024] "in a number of embodiments, voice transmission and reception over Bluetooth is given priority over all other data traffic")

Regarding claim 4, Liang teaches the third priority indication is greater than the second priority indication. (Page 3 [0024] "in a number of embodiments, voice transmission and reception over Bluetooth is given priority over all other data traffic" & "all non-voice priority may be given to function 104 such that function 106 can only access antenna when function 104 is inactive")

Regarding claim 6, Liang teaches the receiving or transmitting data on the second wireless transceiver circuit in accordance with the relative priority of the third priority indication to the first priority indication comprises receiving or transmitting data on the second wireless transceiver circuit if the third priority indication comprises a higher priority than the first priority indication. (Page 3 [0024] "in a number of embodiments, voice transmission and reception over Bluetooth is given priority over all other data traffic")

Regarding claim 7, Liang teaches the first priority indication comprises a user-specified priority indication for the first wireless transceiver circuit, such that the first wireless transceiver circuit is given priority in the reception or transmission of data relative to the second wireless transceiver circuit. (Page 1 [0006])

Regarding claim 8, Liang teaches the first wireless transceiver circuit comprises a WLAN wireless interface device (Fig. 1 [104]), and wherein the second wireless transceiver circuit comprises a Bluetooth wireless interface device. (Fig. 1 [106])

Regarding claim 10, Liang teaches the first wireless transceiver circuit is compliant with Bluetooth and the second wireless transceiver circuit is compliant with IEEE 802.11(b) or IEEE 802.11(g). (Page 2 [0017-0018]) It is well within the scope for one of ordinary skill to realize that if the highest priority information is being transmitted by the WLAN circuit (opposite of what is found in Liang) and not the Bluetooth circuit (as found in Liang), to make the WLAN circuit have the highest priority.

Regarding claim 11, Liang teaches an apparatus for coordinating wireless communications, comprising:

a first wireless interface circuit (Fig. 1 [104]) for performing receiving or transmitting operations of a first type of wireless communication having a first priority level selected from a first plurality of priority levels; (Page 2 [0020-0021] and Figs. 1 & 2)

a second wireless interface circuit (Fig. 1 [106]) for performing receiving or transmitting operations of a second type of wireless communication having a second

priority level selected from a second plurality of priority levels; (Figs. 1 & 2 and Page 2 [0020-0021] and Page 3 [0024])

an interface (Fig. 1 [120, 122, 124, 126 & 128]) coupling the first and second wireless interface circuits for transmitting priority levels between the first and second wireless interface circuits; (Fig. 1 [104 & 106] and Page 3 [0024-0025]) and

a controller (Fig. 1 [118]) for coordinating the operations of the first or second wireless interface circuits in relation to a relative priority of the first and second priority levels, said controller comprising priority level adjustment logic for adjusting a priority level in response to detecting a predetermined condition. (Page 2 [0020] and Page 3 [0024-0027])

Regarding claim 12, the limitations of claim 12 are rejected as being the same reason set forth above in claim 10.

Regarding claim 15, Liang teaches the predetermined condition comprises a request to receive or transmit real tie data over the second wireless interface circuit. (Page 3 [0024] "in a number of embodiments, voice transmission and reception over Bluetooth is given priority over all other data traffic")

Regarding claim 16, Liang teaches the predetermined condition comprises real-time human interface device (HID) traffic being transmitted or received on the second wireless interface circuit, and wherein the priority level adjustment logic increments the second priority level. (Page 1 [0004] "user interface functions")

Regarding claim 17, Liang teaches the predetermined condition comprises a user-specified priority level being entered for the second wireless interface circuit, and

wherein the priority level adjustment logic increments the second priority level above the first priority level in response to detecting the user-specified priority level. (Page 1 [0006])

Regarding claim 21, the limitations of claim 21 are rejected as being the same reasons set forth above in claim 1.

Regarding claim 22, Liang teaches the first priority indication and said second priority indication are selected from a plurality of available priority indications. (Page 3 [0024])

Regarding claim 23, the limitations of claim 23 are rejected as being the same reasons set forth above in claim 1.

Regarding claim 25, the limitations of claim 25 are rejected as being the same reasons set forth above in claim 3.

Regarding claim 26, the limitations of claim 26 are rejected as being the same reasons set forth above in claim 4.

Regarding claim 28, the limitations of claim 28 are rejected as being the same reasons set forth above in claim 6.

Regarding claim 29, the limitations of claim 28 are rejected as being the same reasons set forth above in claim 17.

Regarding claim 30, the limitations of claim 30 are rejected as being the same reasons set forth above in claim 8.

Regarding claim 32, the limitations of claim 32 are rejected as being the same reasons set forth above in claim 10. It is well within the scope for one of ordinary skill to realize that if the highest priority information is being transmitted by the WLAN circuit (opposite of what is found in Liang) and not the Bluetooth circuit (as found in Liang), to make the WLAN circuit have the highest priority.

Regarding claim 33, the limitations of claim 33 are rejected as being the same reasons set forth above in claim 11.

Regarding claim 34, the limitations of claim 34 are rejected as being the same reasons set forth above in claim 11.

Regarding claim 35, the limitations of claim 35 are rejected as being the same reasons set forth above in claim 10.

Regarding claim 38, the limitations of claim 38 are rejected as being the same reasons set forth above in claim 15.

Regarding claim 39, the limitations of claim 39 are rejected as being the same reasons set forth above in claim 16.

Regarding claim 40, the limitations of claim 40 are rejected as being the same reasons set forth above in claim 17.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 2, 13, 14, 19, 20, 24, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang in view of Lane et al. (US-6,978,121 hereinafter, Lane).

Regarding claim 2, Liang teaches the first wireless transceiver circuit coupled to the second wireless transceiver circuit such that a priority indication may be transferred between them. (Fig. 1 [[104, 120, 118, 122 & 106]) Liang differs from the claimed invention by not explicitly reciting the first wireless transceiver circuit comprises a MAC layer module that is directly coupled to a MAC layer module of the second wireless transceiver circuit such that a priority indication may be transferred between the MAC layer modules.

In an analogous art, Lane teaches a dual-mode radio transceiver (Fig. 2 [210 & 250]) that includes a first wireless transceiver circuit comprises a MAC layer module that is directly coupled to a MAC layer module of the second wireless transceiver circuit such that a priority indication may be transferred between the MAC layer modules. (Fig. 2 [230 & 270] and Col. 5 lines 35-51) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the dual-mode transceiver of Liang after modifying it to incorporate the communication between MAC layer modules of Lane. One of ordinary skill in the art would have been motivated to do this since it enables the priorities of transmitting events to be communicated between the MAC modules. (Col. 5 lines 35-51)

Regarding claim 13, Liang teaches the limitations of claim 11 above, but differs from the claimed invention by not explicitly reciting the controller comprises a MAC layer module.

In an analogous art, Lane teaches a controller comprises a MAC layer module. (Fig. 2 [230 & 270] and Col. 5 lines 35-51) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the dual-mode transceiver of Liang after modifying it to incorporate the communication between MAC layer modules of Lane. One of ordinary skill in the art would have been motivated to do this since it enables the priorities of transmitting events to be communicated between the MAC modules. (Col. 5 lines 35-51)

Regarding claim 14, Liang in view of Lane teaches the controller comprises a first MAC layer module in the first wireless interface circuit and a second MAC layer module in the second wireless interface circuit. (Lane Fig. 2 [230 & 270] and Col. 5 lines 35-51)

Regarding claim 19, Liang teaches an apparatus for implement a dynamic collaboration protocol, comprising:

first means for sending or receiving a first wireless signal having a first allocated priority; (Page 3 [0024] and Fig. 1 [104])

second means for sending or receiving a second wireless signal having a second allocated priority; (Page 3 [0024] and Fig. 1 [106])

means for adjusting the second allocated priority to be higher than the first allocated priority if real-time human interface device (HID) traffic is detected on the

second means; ("it may be desirable to incorporate a short-range wireless technology for user interface functions (e.g., wireless voice headset)" (Page 1 [0004]) and that "voice transmission and reception over Bluetooth is given priority over all other data traffic" (Page 3 [0024]) while "non-voice priority may be given to function 104 such that function 106 can only access antenna when function 104 is inactive" (Page 3 [0024] *i.e.* Bluetooth data that isn't voice data can be given the lowest priority) which in the examiner's opinion means if HID traffic (*i.e.* Bluetooth voice data) is detected, then the highest priority is given but if the Bluetooth data isn't voice data, then it can be given the lowest priority) and

means for interfacing and coordinating throughput performance of the first and second means such that whichever of the first or second means has a higher allocated priority is given higher throughput performance. (Page 3 [0024-0027])

Liang differs from the claimed invention by not explicitly reciting a first MAC layer module, a second MAC layer module and a means for interfacing the first and second MAC layer modules to coordinate throughput performance.

In an analogous art, Lane teaches a dual-mode radio transceiver (Fig. 2 [210 & 250]) that includes a first wireless transceiver circuit comprises a MAC layer module that is directly coupled to a MAC layer module of the second wireless transceiver circuit such that a priority indication may be transferred between the MAC layer modules. (Fig. 2 [230 & 270] and Col. 5 lines 35-51) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the dual-mode transceiver of Liang after modifying it to incorporate the communication between MAC layer

modules of Lane. One of ordinary skill in the art would have been motivated to do this since it enables the priorities of transmitting events to be communicated between the MAC modules. (Col. 5 lines 35-51)

Regarding claim 20, Liang in view of Lane teaches the second wireless signal comprises a packet signal, and wherein the means for adjusting the second allocated priority evaluates each packet of the packet signal to detect if real-time human interface device (HID) traffic is present on the second means. (Liang Page 1 [0004] and Page 3 [0024])

Regarding claim 24, the limitations of claim 24 are rejected as being the same reasons set forth above in claim 2.

Regarding claim 36, the limitations of claim 36 are rejected as being the same reasons set forth above in claim 13.

Regarding claim 37, the limitations of claim 37 are rejected as being the same reasons set forth above in claim 14.

14. Claims 5 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang.

Regarding claim 5, Liang teaches a second wireless transceiver circuit comprises a Bluetooth application (Page 2 [0021]), but differs from the claimed invention by not explicitly reciting the predetermined application comprises a Human interface device driver. However, Liang teaches one of the predetermined applications comprises a user interface function (Page 1 [0004]) is deemed to be the highest priority (Page 3 [0024] “in

a number of embodiments, voice transmission and reception over Bluetooth is given priority over all other data traffic") and which one of ordinary skill in the art would recognize as being an equivalent term. Further proof can be seen in the previously cited reference to Kardach (US 2004/0204031) Page 5 [0031] as the HID profile being "high priority".

Regarding claim 27, the limitations of claim 27 are rejected as being the same reasons set forth above in claim 5.

15. Claims 9 & 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang in view of Michaelis et al. (US 2004/0009751 hereinafter, Michaelis).

Liang teaches one wireless transceiver circuit comprises a Bluetooth wireless interface device, but differs from the claimed invention by not explicitly reciting the second wireless transceiver circuit comprises a second Bluetooth wireless interface device.

In an analogous art, Michaelis teaches a dual-mode wireless device (Fig. 2) that includes two Bluetooth personal area network interfaces. (Page 2 [0018-0020]) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the invention of Liang after modifying it to incorporate two Bluetooth wireless interface devices of Michaelis. One of ordinary skill in the art would have been motivated to do this since Bluetooth has a limitation upon the number of concurrent communications that can occur and having two interfaces doubles the possible number of connections.

Regarding claim 31, the limitations of claim 31 are rejected as being the same reasons set forth above in claim 9.

16. Claims 18 & 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang in view of Carter (US-7,003,285).

Regarding claim 18, Liang teaches the limitations of claim 11 above, but differs from the claimed invention by not explicitly reciting the transmission of audio-video traffic and securing the highest priority level available for the transmission of audio-video data.

In an analogous art, Carter teaches a multi-sensory device (Fig. 1 [102]) that can receive audio, video or audio-video traffic and secures the highest priority level available for audio-video data. (Col. 3 lines 26-29, Col. 4 lines 38-42 and Col. 6 line 64 through Col. 7 line 28) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the dual-mode device of Liang after modifying it to incorporate the audio-video priority levels of Carter. One of ordinary skill in the art would have been motivated to do this since the quality of audio-video signal broadcasts can diminish greatly with increased latency.

Regarding claim 41, the limitations of claim 41 are rejected as being the same reasons set forth above in claim 18.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW C. SAMS whose telephone number is (571)272-8099. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571)272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MCS/
3/19/2008

/George Eng/
Supervisory Patent Examiner, Art Unit 2617